



National Aeronautics and
Space Administration

Principal Center for Regulatory Risk Analysis and Communication

REGULATORY SUMMARY

Final Rule

PSD and Title V GHG Tailoring Rule

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Executive Summary

On 3 June 2010, the U.S. Environmental Protection Agency (EPA) announced the availability of a the final rule ([75 FR 31513](#)) titled, "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule," for changes to the permitting requirements for large existing industrial facilities emitting more than 50,000 tons per year (tpy) of carbon dioxide equivalents (CO₂e). The rule defines new thresholds for greenhouse gas (GHG) emissions that determine when Clean Air Act (CAA) permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V operating permits programs are required for new or existing industrial facilities. EPA has tailored the major source applicability thresholds for GHG emissions under the PSD and Title V programs and set a PSD significance level for GHG emissions. The rule establishes a schedule to phase-in the rule's applicability that initially will focus CAA permitting programs on the largest sources because they may be expected to have the resources to comply with PSD's requirements and permitting authorities may be expected to accommodate those sources. The rule then expands to cover the largest sources of GHG that may not have been covered previously by the CAA for other pollutants. Finally, it describes EPA's plans for additional steps in this process. Step 1 of this final rule will take effect on 2 January 2011.

Applicability to NASA

Centers that potentially emit more than 50,000 tpy of GHG on a CO₂e basis may be required to obtain PSD or Title V permits under the final rule. Centers are urged to review the rule, which is available on EPA's website, for potential applicability. This rule takes effect 60 days after publication in the *Federal Register*.

Background

The proposed rule for the regulation of GHGs under the CAA stems from several judicial and regulatory actions over the past several years, as described in the [Proposed Rule PSD and Title V GHG Tailoring Rule Regulatory Summary](#).

Summary of the Final Rule

Legal Basis

The final GHG permitting rule is based on the legal doctrines of “administrative necessity” and “absurd results” to phase in applicability thresholds for both the PSD and Title V programs for sources of GHG emissions, as outlined in the [Proposed Rule PSD and Title V GHG Tailoring Rule Regulatory Summary](#).

Applicability and Thresholds

The final rule limits applicability of permitting requirements to facilities emitting more than 50,000 tpy of GHG on a CO₂e basis. Small farms, restaurants, and many other types of small facilities are not subject to these permitting programs. The rule focuses on controlling or limiting the emissions of the following six GHGs: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons.

Global Warming Potential Calculations

GHGs have a global warming potential (GWP), which is an estimate of how much a given mass of [GHG](#) contributes to [global warming](#). GWP is a relative scale that compares the substance in question to that of the same mass of [carbon dioxide](#), which has been assigned a GWP of 1. In the final rule, EPA requires the use of the GWP values codified in the [Mandatory GHG Reporting Rule](#) to ensure consistency among GHG values for reporting and PSD and Title V permitting. Emissions of GHGs other than carbon dioxide are translated into CO₂e by calculating emissions using the substances’ GWPs. Under this rule, EPA is using CO₂e as the metric for determining whether sources are covered by permitting programs. Total GHG emissions will be calculated by summing the CO₂e emissions of all six constituent GHGs.

Phase-in Approach

EPA has streamlined the process for identifying GHG emissions control requirements and issuing permits. This process is intended to reduce costs and increase efficiency for both sources and state permitting agencies, which in most cases are responsible for issuing the permits.

EPA will phase in the new CAA permitting requirements for GHGs in two initial steps. EPA also is planning a subsequent rulemaking in which it will propose or solicit comments about establishing additional requirements to be implemented as a Step 3, potentially followed by a Step 4.

Step 1

- Effective 2 January 2011 to 30 June 2011
- Only sources currently subject to the PSD permitting program (those that are newly constructed or modified in a way that significantly increases emissions of a criteria pollutant other than GHGs) would be subject to permitting requirements for their GHG emissions under the PSD.
- Projects resulting in GHG increases of 75,000 tpy or more of total GHGs, on a CO₂e basis, would need to incorporate the best available control technology for their GHG emissions.

- Similarly, for the operating permit program, only sources currently subject to the program (newly constructed or existing major sources for a pollutant other than GHGs) would be subject to Title V requirements for GHGs.
- During this timeframe, no sources would be subject to CAA permitting requirements due solely to GHG emissions.

Step 2

- Effective 1 July 2011 to 30 June 2013
- Step 2 will build on Step 1. In this phase, for the first time, PDS permitting requirements will cover new construction projects with GHG emissions of at least 100,000 tpy even if they do not exceed the permitting thresholds for any other pollutant. Modifications at existing facilities that increase GHG emissions by at least 75,000 tpy will be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant.
- Operating permit requirements will, for the first time, apply to sources based on their GHG emissions even if they would not apply based on emissions of any other pollutant. Facilities that emit at least 100,000 tpy CO_{2e} will be subject to Title V permitting requirements.
- EPA estimates that about 550 sources will need to obtain Title V permits for the first time because of their GHG emissions. The majority of these newly permitted sources probably will be solid waste landfills and industrial manufacturers. There will be approximately 900 additional PSD permitting actions each year triggered by increases in GHG emissions from new and modified emission sources.

Future Steps Outlined in this Rule

- In this final rule, EPA also announces an additional rulemaking effort, planned to begin in 2011 and conclude by 1 July 2012. That action will solicit comments on an additional step for phasing in GHG permitting and may discuss whether certain smaller sources could be excluded permanently from permitting. EPA also plans to explore a range of opportunities for streamlining future GHG permitting that have the potential to significantly reduce permitting burdens. EPA will propose viable streamlining options in the “Step 3” rulemaking.
- Step 3, if established, probably would not require permitting for sources with GHG emissions below 50,000 tpy.
- By the end of April 2015, EPA plans to complete a study on remaining GHG permitting burdens that would exist if the program requirements applied to smaller sources. The results of the study will be considered as part of a potential rule development effort planned for completion by 30 April 2016. This possible future rule would further address CAA permitting for smaller facilities, and could permanently exclude certain smaller sources from permitting requirements.
- EPA does not plan to require permits for smaller sources through any other action until at least 30 April 2016.